

U.S. Patent Application Serial No. 10/553,624
Response to OA dated July 2, 2007
Amendment filed October 1, 2007

REMARKS

Claims 1 - 6 and 8 - 11 are pending in this application of which claims 1, 2, 6 and 9 have been amended. Claim 7 has been canceled without prejudice or disclaimer. No new claims have been added. Claims 1 and 6 are independent claims.

As to the merits of this case, first, claims 1 - 5 and 10 are rejected under 35 U.S.C. §102(e) as being anticipated by Konishi et al. (U.S. Patent No. 7,020,302). The applicants respectfully request reconsideration of this rejection.

The applicants' claimed invention, as now recited in independent claim 1, is directed to a flat panel speaker unit which includes, within a frame, a transparent diaphragm for outputting sound; a vibration generating part arranged on the peripheral portion of the diaphragm to directly drive the diaphragm for vibration; and a display device disposed inward of the diaphragm, for displaying information. The diaphragm and the display device are stacked with a gap therebetween so that an image on the display device can be viewed through the diaphragm; and the diaphragm is fixed to the frame by mounting a peripheral portion of the diaphragm onto the frame. As now further recited in claim 1, the vibration generating part includes a coil and a magnet, either one of which is mounted on the diaphragm and the other is mounted to the frame.

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Significant claimed structural arrangements of the applicants' claimed flat panel speaker unit includes the claimed vibration generating part arranged on the peripheral portion of the diaphragm to directly drive the diaphragm for vibration, and the claimed vibration generating part having a coil and a magnet, either one of which is mounted on the diaphragm and the other is mounted to the frame.

On the other hand, Konishi teaches an electromagnetic coil 28 attached to the first diaphragm 27 (and not to the second diaphragm 30, as shown in Konishi's Figure 2. That is, Konishi's device does not make a direct drive on the second diaphragm 30. To the contrary, in the applicants' claimed invention, as now recited in independent claim 1, the claimed vibration generation part 4 directly drives the claimed diaphragm 2.

In view of the above, not all of the claimed elements, as now recited in independent claim 1, as amended, are found in exactly the same situation and united in the same way to perform the identical function in Konishi. Thus, there can be no anticipation of the applicants' claimed invention under 35 U.S.C. §102(e) based on Konishi.

Furthermore, claims 2 - 5 and 10 depend on claim 1, and further limit the scope of claim 1. Thus, at least for the reasons discussed above with respect to claim 1, claims 2 - 5 and 10 should now be similarly allowable.

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In view of the above, the withdrawal of the outstanding anticipation rejection under 35 U.S.C. §102(e) as being anticipated by Konishi et al. (U.S. Patent No. 7,020,302) is in order, and is therefore respectfully solicited.

Second, claims 6 - 9 and 11 are rejected under 35 U.S.C. §103(a) as being obvious over Sato et al. (U.S. Patent No. 5,764,784) in view of Konishi. The applicants respectfully request reconsideration of this rejection.

The applicants' claimed invention, as now recited in independent claim 6, is directed to a flat panel speaker unit which includes, within a frame, a transparent diaphragm for outputting sound; and a vibration generating part including a coil and a magnet, for vibrating the diaphragm; and a display device disposed inward of the diaphragm for displaying information. As now further recited in claim 6, either one of the coil and magnet is mounted on a peripheral portion of the diaphragm; and a central portion of the diaphragm which fully covers an underlying display is thicker than the peripheral portion of the diaphragm to which the vibration generating part is mounted. Further recited in claim 1, the coil of the vibration generating part is coiled more laterally than vertically, and causes the diaphragm to vibrate by receiving magnetic flux lines, among the magnetic flux lines emitted from the magnet, that are diagonal or parallel with respect to the diaphragm.

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Significant claimed structural arrangements of the claimed invention, as now recited in claim 6, include either one of the coil and magnet being mounted on a peripheral portion of the diaphragm, and a central portion of the diaphragm which fully covers an underlying display being thicker than the peripheral portion of the diaphragm to which the vibration generating part is mounted.

Konishi and Sato, singly or in combination, do not disclose the structural arrangements whereby a central portion of the diaphragm 2, which fully covers an underlying display 3, is thicker than peripheral portions of the diaphragm 2 to which a coil 40 is attached. Thus, even if *arguendo* the teachings of Konishi and Sato may be combined in the manner suggested by the Examiner, such combined teachings would still fall far short in fully meeting the applicants' claimed invention, as now set forth in claim 6.

Moreover, claims 7 - 9 and 11 depend on claim 6, and further limit the scope of claim 6. Thus, at least for the reasons discussed above with respect to claim 6, claims 7 - 9 and 11 should now be similarly allowable.

In view of the above, the withdrawal of the outstanding obviousness rejection under 35 U.S.C. §103(a) as being obvious over Sato et al. (U.S. Patent No. 5,764,784) in view of Konishi is in order, and is therefore respectfully solicited.

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In view of the aforementioned amendments and accompanying remarks, claims 1 - 6 and 8 - 11, as amended, are believed to be patentable and in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper to Deposit Account No. 01-2340.

Respectfully submitted,

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